

Figure 1A

5'GGAGC	TCC	GAG	TGT	CCA	CAG	GAA	GGG	AAC	TAT	CAG	CTC	CTG	GCA	TCT	GTA	AGG	ATG	56
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CTG	TCC	ATG	CTG	AGG	ACA	ATG	ACC	AGA	CTC	TGC	TTC	CTG	TTA	TTC	TTC	TCT	GTG	110
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L	S	M	L	R	T	M	T	R	L	C	F	L	L	F	F	S	V	---
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GCC	ACC	AGT	GGG	TGC	AGT	GCA	GCA	GCC	TCT	TCT	TCT	CTT	GAG	ATG	CTC	TCG	AGG	164
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A	T	S	G	C	S	A	A	A	S	S	L	E	M	L	S	R	---	---
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GAA	TTC	GAA	ACC	TGT	GCC	TTC	TCC	TTT	TCT	TCC	CTG	CCT	AGA	AGC	TGC	AAA	GAA	218
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E	F	E	T	C	A	F	S	F	S	S	L	P	R	S	C	K	E	---
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ATC	AAG	GAA	CGC	TGC	CAT	AGT	GCA	GGT	GAT	GGC	CTG	TAT	TTT	CTC	CGC	ACC	AAG	272
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I	K	E	R	C	H	S	A	G	D	G	L	Y	F	L	R	T	K	---
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AAT	GGT	GTT	GTC	TAC	CAG	ACC	TTC	TGT	GAC	ATG	ACT	TCT	GGG	GGT	GGC	GGC	TGG	326
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N	G	V	V	Y	Q	T	F	C	D	M	T	S	G	G	G	G	W	---

FIGURE 1A

335	ACC	CTG	GTG	GCC	AGC	GTG	CAC	GAG	AAT	GAC	ATG	CAT	GGG	AAG	TGC	ACG	GTG	GGT	380
	T	L	V	A	S	V	H	E	N	D	M	H	G	K	C	T	V	G	
339	GAT	CGC	TGG	TCC	AGT	CAG	CAG	GGC	AAC	AAA	GCA	GAC	TAC	CCA	GAG	GGG	GAT	GGC	434
	D	R	W	S	S	Q	Q	G	N	K	A	D	Y	P	E	G	D	G	
443	AAC	TGG	GCC	AAC	TAC	AAC	ACC	TTT	GGA	TCT	GCA	GAG	GCG	GCC	ACG	AGC	GAT	GAC	488
	N	W	A	N	Y	N	T	F	G	S	A	E	A	A	T	S	D	D	
497	TAC	AAG	AAC	CCT	GGC	TAC	TAC	GAC	ATC	CAG	GCC	AAG	GAC	CTG	GGC	ATC	TGG	CAT	542
	Y	K	N	P	G	Y	Y	D	I	Q	A	K	D	L	G	I	W	H	
551	GTG	CCC	AAC	AAG	TCC	CCC	ATG	CAG	CAT	TGG	AGA	AAC	AGC	GCC	CTG	CTG	AGG	TAC	596
	V	P	N	K	S	P	M	Q	H	W	R	N	S	A	L	L	R	Y	
605	CGC	ACC	AAC	ACT	GGC	TTC	CTC	CAG	AGA	CTG	GGA	CAT	AAT	CTG	TTT	GGC	ATC	TAC	650
	R	T	N	T	G	F	L	Q	R	L	G	H	N	L	F	G	I	Y	

FIGURE 1B

659	CAG	AAA	TAC	CCA	GTG	AAA	TAC	AGA	TCA	GGG	AAA	TGT	TGG	AAT	GAC	AAT	GGC	CCA
	Q	K	Y	P	V	K	Y	R	S	G	K	C	W	N	D	N	G	P
713	GCC	ATA	CCT	GTG	GTC	TAT	GAC	TTT	GGT	GAT	GCT	AAG	AAG	ACT	GCA	TCT	TAT	TAC
	A	I	P	V	V	Y	D	F	G	D	A	K	K	T	A	S	Y	Y
767	TCA	CCG	TAT	GGT	CAA	CGG	GAA	TTT	GTT	GCA	GGA	TTC	GTT	CAG	TTC	CGG	GTG	TTT
	S	P	Y	G	Q	R	E	F	V	A	G	F	V	Q	F	R	V	F
821	AAT	AAC	GAG	AGA	GCA	GCC	AAC	GCC	CTT	TGT	GCT	GGG	ATA	AAA	GTT	ACT	GGC	TGT
	N	N	E	R	A	A	N	A	L	C	A	G	I	K	V	T	G	C
875	AAC	ACT	GAG	CAT	CAC	TGC	ATC	GGT	GGA	GGA	GGG	TTC	TTC	CCA	CAG	GGC	AAA	CCC
	N	T	E	H	H	C	I	G	G	G	G	F	F	P	Q	G	K	P
929	CGT	CAG	TGT	GGG	GAC	TTC	TCC	GCC	TTT	GAC	TGG	GAT	GGA	TAT	GGA	ACT	CAC	GTT
	R	Q	C	G	D	F	S	A	F	D	W	D	G	Y	G	T	H	V

FIGURE 1C

983	992	1001	1010	1019	1028
AAG AGC AGC TGC AGT CGG GAG ATA ACG GAG GCG GCT GTA CTC TTG TTC TAT AGA					
K S S C S R E I T E A A V L L F Y R					
1037	1046	1055	1064	1073	1082
TGA GAC AGA GCT CTG CGG TGT CAG GGC GAG AAC CCA TCT TCC AAC CCC GGC TAT					
*					
1091	1100	1109	1118	1127	1136
TTG GAG ACG GAA AAA CTG GAA TTC TAA CAA GGA GGA GAG GAG ACT AAA TCA CAT					
CAA TTC 3'					

FIGURE 1D

TEST CODE

1	M	L	S	M	L	R	T	M	T	R	L	C	F	L	L	F	F	S	V	A	2921920CD1
1	M	-	-	-	-	-	-	-	N	Q	L	S	F	L	L	F	L	I	A	T	g8096221
1	M	-	-	-	-	-	-	-	T	Q	L	G	F	L	L	F	I	M	V	A	g3357909
21	T	S	G	C	S	A	A	A	S	S	L	E	M	L	S	R	E	F	E		2921920CD1
14	T	R	G	W	S	T	D	E	A	N	T	Y	-	-	-	F	K	E	W	-	g8096221
14	T	R	G	C	S	A	A	E	E	N	-	-	-	L	D	T	N	R	W	G	g3357909
41	T	C	A	F	S	F	S	S	L	P	R	S	C	K	E	I	K	E	R	C	2921920CD1
30	T	C	S	S	S	-	P	S	L	P	R	S	C	K	E	I	K	D	E	C	g8096221
31	-	-	N	S	F	F	S	S	L	P	R	S	C	K	E	I	K	Q	E	H	g3357909
61	H	S	A	G	D	G	L	Y	F	L	R	T	K	N	G	V	V	Y	Q	T	2921920CD1
49	P	S	A	F	D	G	L	Y	F	L	R	T	E	N	G	V	I	Y	Q	T	g8096221
49	T	K	A	Q	D	G	L	Y	F	L	R	T	K	N	G	V	I	Y	Q	T	g3357909
81	F	C	D	M	T	S	G	G	G	G	W	T	L	V	A	S	V	H	E	N	2921920CD1
69	F	C	D	M	T	S	G	G	G	G	W	T	L	V	A	S	V	H	E	N	g8096221
69	F	C	D	M	T	T	A	G	G	G	W	T	L	V	A	S	V	H	E	N	g3357909

FIGURE 2A

FIGURE 2A

101 D M H G K C T V G D R W S S Q Q G N K A 2921920CD1
 89 D M R G K C T V G D R W S S Q Q G S K A g8096221
 89 N M R G K C T V G D R W S S Q Q G N R A g3357909

121 D Y P E G D G N W A N Y N T F G S A E A 2921920CD1
 109 D Y P E G D G N W A N Y N T F G S A E A g8096221
 109 D Y P E G D G N W A N Y N T F G S A E A g3357909

141 A T S D D Y K N P G Y Y D I Q A K D L G 2921920CD1
 129 A T S D D Y K N P G Y Y D I Q A K D L G g8096221
 129 A T S D D Y K N P G Y D I Q A E N L G g3357909

161 I W H V P N K S P M Q H W R N S A L L R 2921920CD1
 149 I W H V P N K S P M Q H W R N S S L L R g8096221
 149 I W H V P N K S P L H N W R K S S L L R g3357909

181 Y R T N T G F L Q R L G H N L F G I Y Q 2921920CD1
 169 Y R T D T G F L Q T L G H N L F G I Y Q g8096221
 169 Y R T F T G F L Q H L G H N L F G L Y K g3357909

FIGURE 2B

TESTED FOR

201	K Y P V K Y R S G K C W N D N G P A I P	2921920CD1
189	K Y P V K Y G E G K C W T D N G P V I P	g8096221
189	K Y P V K Y G E G K C W T D N G P A L P	g3357909
221	V V Y D F G D A K K T A S Y Y S P Y G Q	2921920CD1
209	V V Y D F G D A Q K T A S Y Y S P Y G Q	g8096221
209	V V Y D F G D A R K T A S Y Y S P S G Q	g3357909
241	R E F V A G F V Q F R V F N N E R A A N	2921920CD1
229	R E F T A G F V Q F R V F N N E R A A N	g8096221
229	R E F T A G Y V Q F R V F N N E R A A S	g3357909
261	A L C A G I K V T G C N T E H H C I G G	2921920CD1
249	A L C A G M R V T G C N T E H H C I G G	g8096221
249	A L C A G V R V T G C N T E H H C I G G	g3357909
281	G G F F P Q G K P R Q C G D F S A F D W	2921920CD1
269	G G Y F F E A S P Q Q C G D F S G F D W	g8096221
269	G G F F F E G N P V Q C G D F A S F D W	g3357909

FIGURE 2C

109210: 4051450

301	D	G	Y	G	T	H	V	K	S	S	C	S	R	E	I	T	E	A	A	V	2921920CD1
289	S	G	Y	G	T	H	V	G	Y	S	S	S	R	E	I	T	E	A	A	V	g8096221
289	D	G	Y	G	T	H	N	G	Y	S	S	S	R	K	I	T	E	A	A	V	g3357909
321	L	L	F	Y	R																2921920CD1
309	L	L	F	Y	R																g8096221
309	L	L	F	Y	R																g3357909

FIGURE 2D